APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,720	04/21/2004	John Michael Lake	RSW920040056US1	4768

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IBM CORPORATION
3039 CORNWALLIS RD.
DEPT. T81 / B503, PO BOX 12195
REASEARCH TRIANGLE PARK, NC 27709

EXAMINER
INGBERG, TODD D

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
05/17/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

RSWIPLAW@us.ibm.com

	Application No.	Applicant(s)
Office Action Summary	10/828,720	LAKE, JOHN MICHAEL
	Examiner	Art Unit	
	Todd Ingberg	2193	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 April 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 April 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　1.☐ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date <u>4/21/04</u>.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claims 1 – 21 have been examined.

Information Disclosure Statement

1.   The Information Disclosure Statement filed April 21, 2004 has been considered.

Drawings

2.   The drawings filed April 21, 2004 have been accepted.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   Claims 1 – 9 and 11- 21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. The invention fails to recite an operation performed on a tangibly embodied on a computer readable medium.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1 – 3, 10 – 12 and 19 – 21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over USPN 6,519,763 **Kaufer** et al (filed 1999) in view of "Using **Metrics** to

Manage Software Projects", Edward F. Weller September 1994 (see IDS).

Claim 1
Kaufer teaches a software tool for estimating software projects method for estimating software
project requirements (Kaufer, Abstract), comprising the steps of Metrics teaches tracking metrics
of a software project and use of historical metrics of past projects. Metrics teaches computing a
validity ratio for defects in an open state (Metrics, page 31, Estimate size of actual bugs and
Project Tracking page 31 under Effort Variance); computing a fix rate for a team; analyzing a
software defect backlog that includes the defects in the open state (Metric, page 31, Defect
Density), using the computed validity ratio (Metric, page 31, observation – top of page),
and the computed fix rate (Metric, page 31, center of page historic metrics).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention
to modify the Estimation tool of Kaufer and incorporate the metrics of Metrics, because tracking
projects is part of complying with the Software Engineering Institutes, Capability Maturity
Model.

Claim 2
The method of claim 1, wherein the validity ratio is computed using defect census data read from
a defect census data repository. (Metrics, page 31, left side center, Cocomo – stores Project
Management data from different phases of the project).

Claim 3
The method of claim 1, wherein the fix rate is computed using team performance census data
read from a team performance census data repository. (Metrics, pages 31 - 32, left side, Project
Tracking, Table 2, Figure 7)

Claim 10
A program storage device readable by a machine, tangibly embodying a program of instructions
executable by the machine to perform method steps for estimating software project requirements,
said method steps comprising:
computing a validity ratio for defects in an open state; computing a fix rate for a team; analyzing
a software defect backlog that includes the defects in the open state, using the computed validity
ratio and the computed fix rate. As per the rejection for claim 1.

Claim 11
The program storage device of claim 10, wherein the validity ratio is computed using defect
census data read from a defect census data repository. As per the rejection for claim 2.

Claim 12

The program storage device of claim 10, wherein the fix rate is computed using team performance census data read from a team performance census data repository. As per the rejection for claim 3.

Claim 19
Apparatus for estimating software project requirements, comprising:
a defect census data repository, a team performance census data repository; and an estimation engine for computing a validity ratio for defects in an open state, using information from the defect census data repository; computing a fix rate for a team, using information from the team performance census data repository; and analyzing a software defect backlog that includes the open defects, using the computed validity ratio and the computed fix rate. As per the rejection for claim 1.

Claim 20
The method of claim 19, wherein analyzing a software defect backlog includes computing a drain date for the backlog, using the validity ratio and the fix rate. As per claims 1 to claim 3 and page 29, effort projections and tracking and staff).

Claim 21
The method of claim 19, wherein analyzing a software defect backlog includes computing a capacity of a team to fix defects, using the validity ratio and the fix rate. As per claim 3 and Claim 20 – effort estimation and resource allocation and project tracking as per claims 1 – claim 3).

Examiner's Observation

7.   The formula as claimed in claims 4 and 13 appears to be novel over prior art of record.

Correspondence Information

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The

examiner can normally be reached on during the work week..

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Todd Ingberg
Primary Examiner
Art Unit 2193

TI